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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,397	10/28/2003	Jingdong Lin	38483-8013US	6388

25096 7590 12/22/2006  
PERKINS COIE LLP  
PATENT-SEA  
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SEATTLE, WA 98111-1247

EXAMINER
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PHAM, TUAN

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/696,397

Applicant(s)

LIN ET AL.

Examiner

TUAN A. PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 9 and 10 is/are allowed.  
6) ☒ Claim(s) 1-8 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

2. The Amendment to the specification submitted on 08/29/2006 has been considered by Examiner and made of record in the application file.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**4. Claims 1, 4-5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattila et al. (U.S. Patent No.: 6,810,273, hereinafter, "Mattila") in view of Nogueiro et al. (Pub. No.: US 2003/0224771, hereinafter, "Nogueiro").**

**Regarding claims 1 and 5**, Mattila teaches an apparatus and method for detecting a silent frame (read on comfort noise) at a mobile station in a GSM transmission comprising (see figure 1, comfort noise in the GSM system using DTX):

means for receiving a data burst intended for said mobile station (see figure 2, the mobile 10 receive the burst data);

means for determining a signal-to-interference-and-noise ratio (SNR) for said data burst (see SNR, col.17, ln.45-67); and

means for determining if said SNR is below a predetermined threshold and then identifying said data burst as from a silent frame (see col.17, ln.47-67, col.21, ln.35-52, Mattila using the DTX in GSM system for generating the comfort noise or silent frame when the SNR compare with the threshold is below the predetermined threshold, which is no speed is detected).

It should be noticed that Mattila fail to teach the data burst including 116 encrypted bits, 26 training sequence bits, and 6 tail bits. However, Nogueiro teaches such features (see figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Nogueiro into view of Mattila in order to coordinate tasks in a real-time of GSM system at col.1, [0003]).

**Regarding claims 4 and 8**, Mattila fails to disclose that the predetermined threshold is less than 0.2. Please note that to the extent that Mattila does not specify exact ranges for the threshold, these figures would have been a matter of routine experimentation to one of ordinary skill in the art at the time of the invention was made, in order to ensure optimal identification of a silent frame. See *In re Aller*, 105 USPQ 233 (CCPA 1955) (Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

**5. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattila et al. (U.S. Patent No.: 6,810,273, hereinafter, "Mattila") in view of Nogueiro et al. (Pub. No.: US 2003/0224771, hereinafter, "Nogueiro") as applied to claims 1 and 5 above, and further in view of Copeland (U.S. Patent No.: 6,067,319).**

**Regarding claims 2 and 6**, Mattila and Nogueiro, in combination, fails to teaches the SNR pass through a low pass filter. Copeland discloses low pass filtering the SNR (col.11, ln.39-56). Mattila already discloses comparing the SNR to a threshold value (col.17, ln.45-50). In light of Copeland it would be obvious to one skilled in the art to combine the teachings of Chen and Copeland for the purpose of increasing the signal to noise ratio at col.11, ln.57-59.

**6. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattila et al. (U.S. Patent No.: 6,810,273, hereinafter, "Mattila") in view of Nogueiro et al. (Pub. No.: US 2003/0224771, hereinafter, "Nogueiro") as applied to**

**claims 1 and 5 above, and in view of Copeland (U.S. Patent No.: 6,067,319) and further in view of Kavcic et al. (U.S. Patent No.: 6,438,180, hereinafter, "Kavcic").**

Regarding claims 3 and 7, Mattila, Nogueiro, and Copeland, in combination, fails to teach the forgetting factor (p) of 0.95 of the low pass filter. However, Kavcic teaches a low pass filter with a forgetting factor (p) of 0.95 (Column 12, Lines 55-67). In light of Kavcic, it would be obvious to one skilled in the art to combine the teachings of Mattila, Nogueiro, and Copeland into view of Kavcic in order to provide a high forgetting factor (p) of 0.95 for the purpose of providing stability to the smoothing filters in the silent frame detector.

***Allowable Subject Matter***

7. Claims 9-10 are allowed.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618  
December 19, 2006  
Examiner

Tuan Pham

Supervisory Patent Examiner  
Technology Center 2600

Matthew Anderson